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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/588,227

08/03/2006

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128935

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25944 7590 09/09/2010  
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EXAMINER

SLIFKA, COLIN W

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

09/09/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                                                                       |                               |                                 |  |
|-----------------------------------------------------------------------|-------------------------------|---------------------------------|--|
| <b>Advisory Action</b><br><b>Before the Filing of an Appeal Brief</b> | Application No.<br>10/588,227 | Applicant(s)<br>ISHIKAWA ET AL. |  |
|                                                                       | Examiner<br>COLIN W. SLIFKA   | Art Unit<br>1793                |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 27 August 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☒ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1,2 and 6-12.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Melvin Curtis Mayes/  
Supervisory Patent Examiner, Art Unit 1793

/COLIN W SLIFKA/  
Examiner, Art Unit 1793

Continuation of 3. NOTE: The proposed amendments are not entered because the limitations of claim 10 ("each of the phases in the voltage converter handles an alternating current...the change of the number of phases is conducted in a synchronized manner"), when brought into independent claims 2 and 6, change the scope of claims 2 and 6 and therefore would require further consideration. It should be noted that claim 9 of the proposed amendments (not entered) is dependent upon cancelled independent claim 1.

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that the rejection of record does not teach instant claim 10. Said arguments are made in three parts, A, B, and C, respectively.

Regarding part A, Examiner states in the previous action that the instant claims base the operation of the converter on a value "equivalent to" the actual power passing through the converter. "Equivalent to" is not considered to be "actual," and therefore, Applicant's arguments are moot. Examiner further stated that even if the instant claims were drawn to the "actual power," as argued by Applicant, such an argument is not persuasive. While it is true that Tsuchiya teaches the controller 4 controls the DC-DC converters based on the demand output voltage from the inverter 2, Tsuchiya also teaches that controller 4 controls the converters based upon input/output current voltage information from current/voltage sensors 5 and 6, and battery voltage information, among others. Said current/voltage sensors are considered able to determine the power passing through the converters.

Regarding part B, Applicant argues that Peng does not teach that each of the phases in the voltage converter has an alternating current and has a different "phase shift" with respect to the other phases. Applicant further asserts that Peng is merely capable of handling various types of current. Examiner respectfully disagrees and refers to the rejection of record, which states "Peng teaches that three-phase bridge converters are typical voltage converters used with batteries, fuel cell stacks, etc. (col. 1, lines 19-22). Traditionally three-phase voltage converters include six switches, which are controlled by a control unit to provide a desired output (col. 1, lines 25-32). The invention of Peng includes a switch array that is controlled by a control unit to provide single or multiple phase power (col. 3, lines 65-67)." Examiner considers this to constitute a teaching of the instant claim.

Regarding part C, Applicant argues that the art of record does not teach that the change of number of phases is conducted in a synchronized manner. Applicant alleges that Examiner merely assumes that any control method would conduct the phase changes in a synchronized manner. Examiner disagrees, insofar as the controller in the rejection of record is considered to be capable of conducting the phase changes in a synchronized manner. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a controller that changes the number of phases in a synchronized manner for the sake of organization and efficiency.